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(54) OPTICAL MODULE DEVICE, COMBINED PRISM **USING IT, AND FORMING METHOD THEREOF**

(57) Abstract:

PROBLEM TO BE SOLVED: To provide an optical module device permitting to make an optical head device thinner.

SOLUTION: To input/output light from the side of the case, this optical module is provided with a half-wave plate 24 converting TE-polarized output light emitted from a light emitting element 20 into TM-polarized light, a polarized light beam splitter 22 transmitting the TM-polarized output light and reflecting the returning light of TM-polarized light toward a light receiving element 16, a polarizing hologram element 26 transmitting the output light as 0-order light and diffracting the returning light as primary light, and a quarter-wave plate 28 outputting TM-polarized output light by converting it into circular-polarized light and also converting the returning circular-polarized light from outside into TE-polarized light. As a result, it is possible to mount the optical module on the optical head

without laying it on its side and the optical head can be made thinner.

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